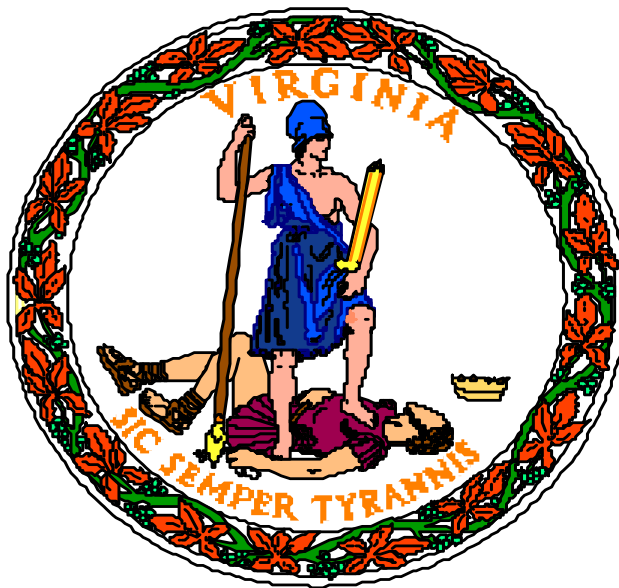


**2003 ANNUAL REPORT
SUMMARY OF SURVEILLANCE DATA
FOR VIRGINIA CHILDREN
WITH ELEVATED BLOOD LEAD LEVELS**



**VIRGINIA DEPARTMENT OF HEALTH
OFFICE OF EPIDEMIOLOGY
DIVISION OF HEALTH HAZARDS CONTROL
109 GOVERNOR STREET
RICHMOND, VIRGINIA 23219**

PART A: STATEWIDE STATISTICS

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INTRODUCTION

The summary of surveillance data for Virginia children reported with elevated blood lead levels is presented in this 2003 annual report. The report includes all data submitted to the Virginia Department of Health, Office of Epidemiology, for any child age 15 years or younger, with an elevated blood lead level of greater than or equal to 10 micrograms per deciliter ($\mu\text{g/dL}$). The data include newly reported cases for 2003, as well as comparative summary data for 2001 and 2002.

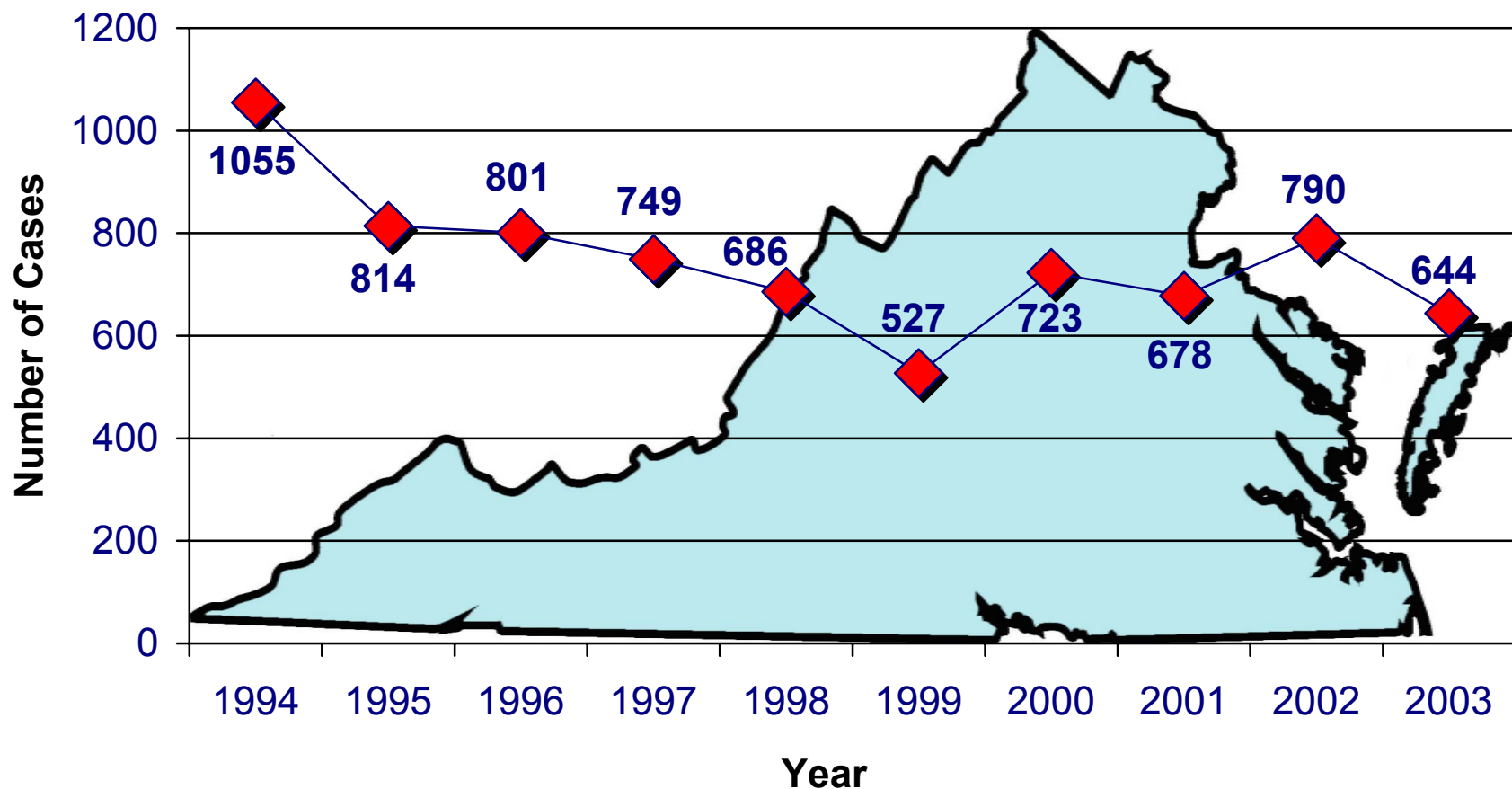
An elevated blood lead level in children is a reportable condition in Virginia as stated in the *Regulations for Disease Reporting and Control*. The Office of Epidemiology is responsible for gathering and tracking information on these children, and maintaining the statewide database. Reports are received from various sources including laboratories, hospitals, physicians, and local health departments. By gathering the information in one centralized location, the data can be closely scrutinized for accuracy and completeness, and duplicate records can be eliminated. This is an incidence database. Therefore, a child is counted only once based on the date of the initial elevated blood lead report. Any follow-up test results are noted within the existing initial record, including data from different reporting years. Information is continually updated for each child as new reports are received.

The data in this report are presented in several formats. Reported cases are compared by race, sex, age, and range of blood lead levels. Additionally, total cases are given for each locality, health district, and region in the state. Population figures provided in this report are taken from results of Census Bureau 2002 estimates and are used to calculate rates of cases per 100,000 children. Data are also provided which explain the source of reports, the home address status for reported cases, the test type utilized for screening, and the frequencies of repeat elevated levels. A comparison for totals of "health department patient" versus "non-health department patient" is provided for each district.

Missing data elements for children continue to be a concern. Laboratories submitted ninety-one percent of the initial screening reports during 2003. Unfortunately, these same laboratories do not always provide complete data. The major missing variables include the blood test type (unknown = 32%), race (unknown = 28%), and home address (unknown = 5%). The majority of children (71%) received their initial screening by a private physician as opposed to health department staff. Contacting each physician's office to obtain missing information is difficult and time consuming. As in previous years, assistance from local health departments helped reduce the number of missing elements in the data. Specifically, the work of public health nurses and lead program coordinators is recognized and greatly appreciated in contacting individual physicians for additional information.

This annual report is intended to be a useful resource when addressing concerns about childhood lead exposure in Virginia. Your suggestions for the use of the data or the manner in which it is presented are always welcome. Additional copies of the report can be obtained by visiting the Division of Health Hazards Control website at www.vdh.virginia.gov/hhcontrol then linking to the *Publications* page and scrolling down to *Reports*. Should you have any questions concerning the data, please contact Lala Wilson, Virginia Department of Health, Division of Health Hazards Control, by phone at (804) 864-8184 or by e-mail at lala.wilson@vdh.virginia.gov.

Reported New Cases of Childhood Elevated Blood Lead Levels, by Year, from 1994 to 2003



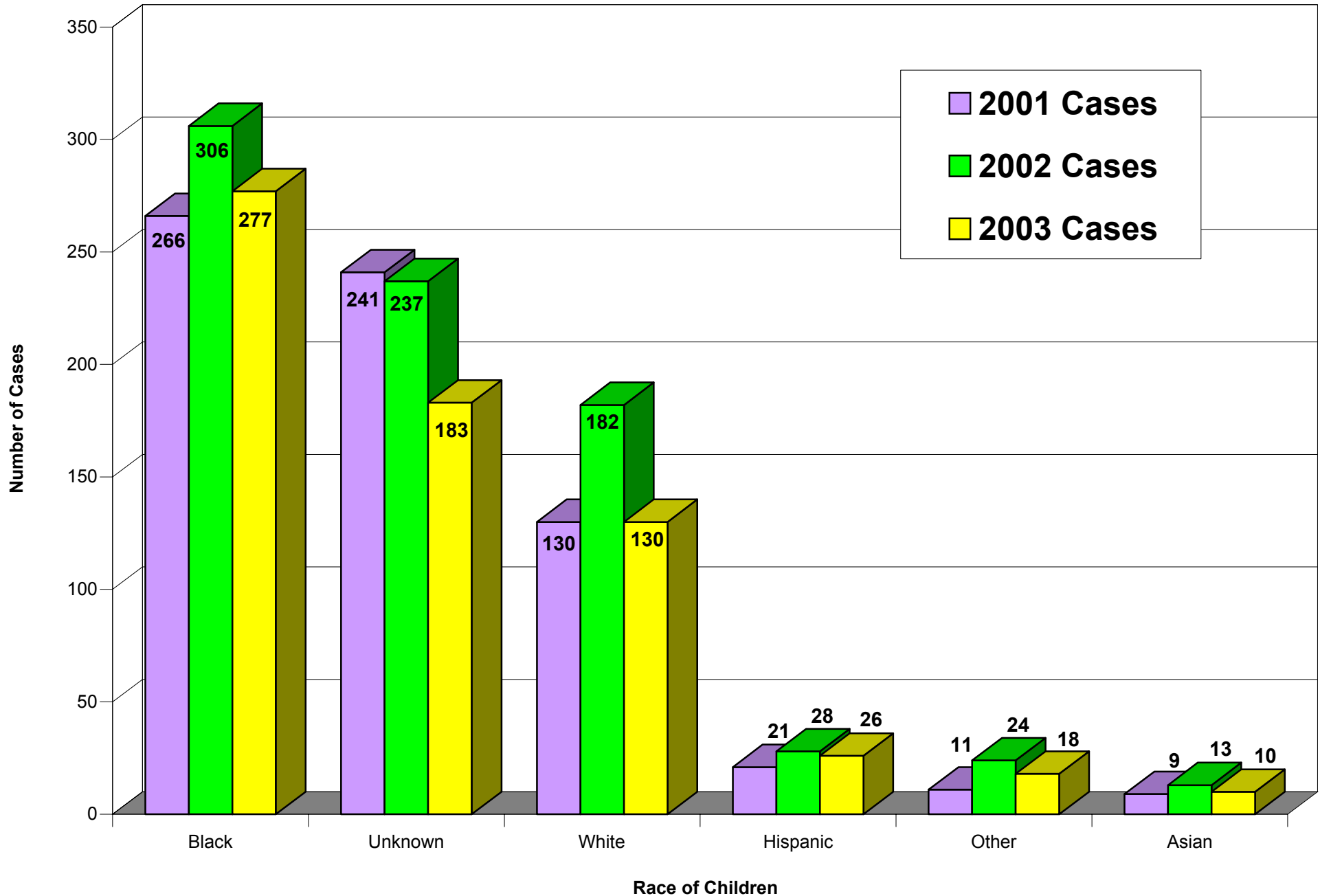
Revisions to the *Regulations for Disease Reporting and Control* effective January 1, 1999, changed the reportable blood lead level for Virginia children from ≥ 15 micrograms per deciliter ($\mu\text{g}/\text{dL}$) to ≥ 10 $\mu\text{g}/\text{dL}$. Blood lead levels between 10 and 14 $\mu\text{g}/\text{dL}$ that were reported voluntarily prior to 1999 are reflected in these data. The mean yearly total is 747 with a standard deviation of 138.3.

***Number of Virginia Children Reported with Blood Lead
Levels ≥ 10 $\mu\text{g/dL}$, by Race, from 2001 to 2003***

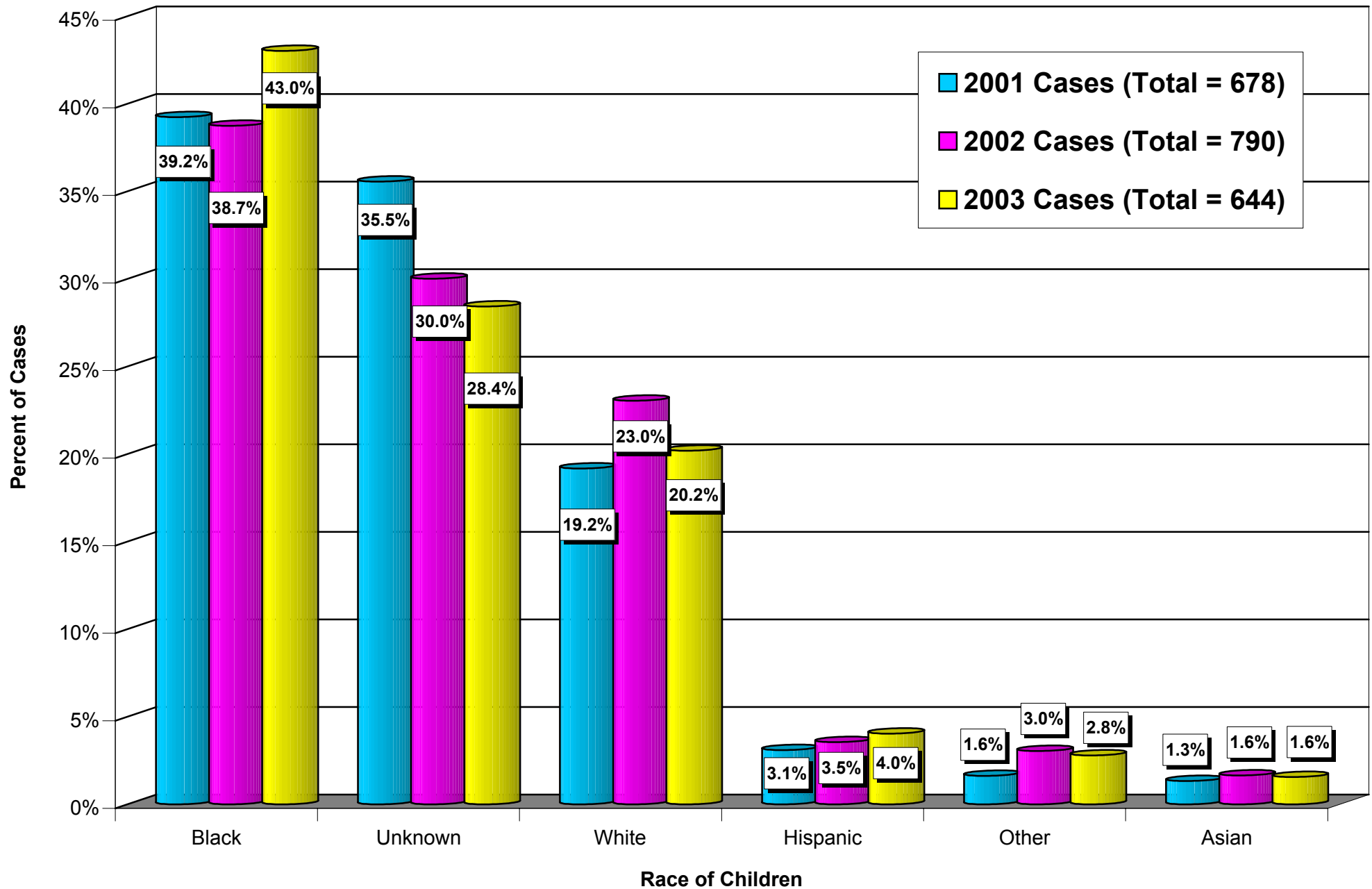
RACE	2001 Cases	2002 Cases	2003 Cases	Total Cases 2001-2003	Percent of 3-Year Total
Black	266	306	277	849	40.2%
Unknown	241	237	183	661	31.3%
White	130	182	130	442	20.9%
Hispanic	21	28	26	75	3.6%
Other	11	24	18	53	2.5%
Asian	9	13	10	32	1.5%
Total	678	790	644	2112	100.0%

The above data represent new cases of Virginia children reported from 2001 to 2003 with blood lead levels greater than or equal to 10 micrograms per deciliter (≥ 10 $\mu\text{g/dL}$). The data are a comparison of the children by race. The majority of cases in all three years were reported as black.

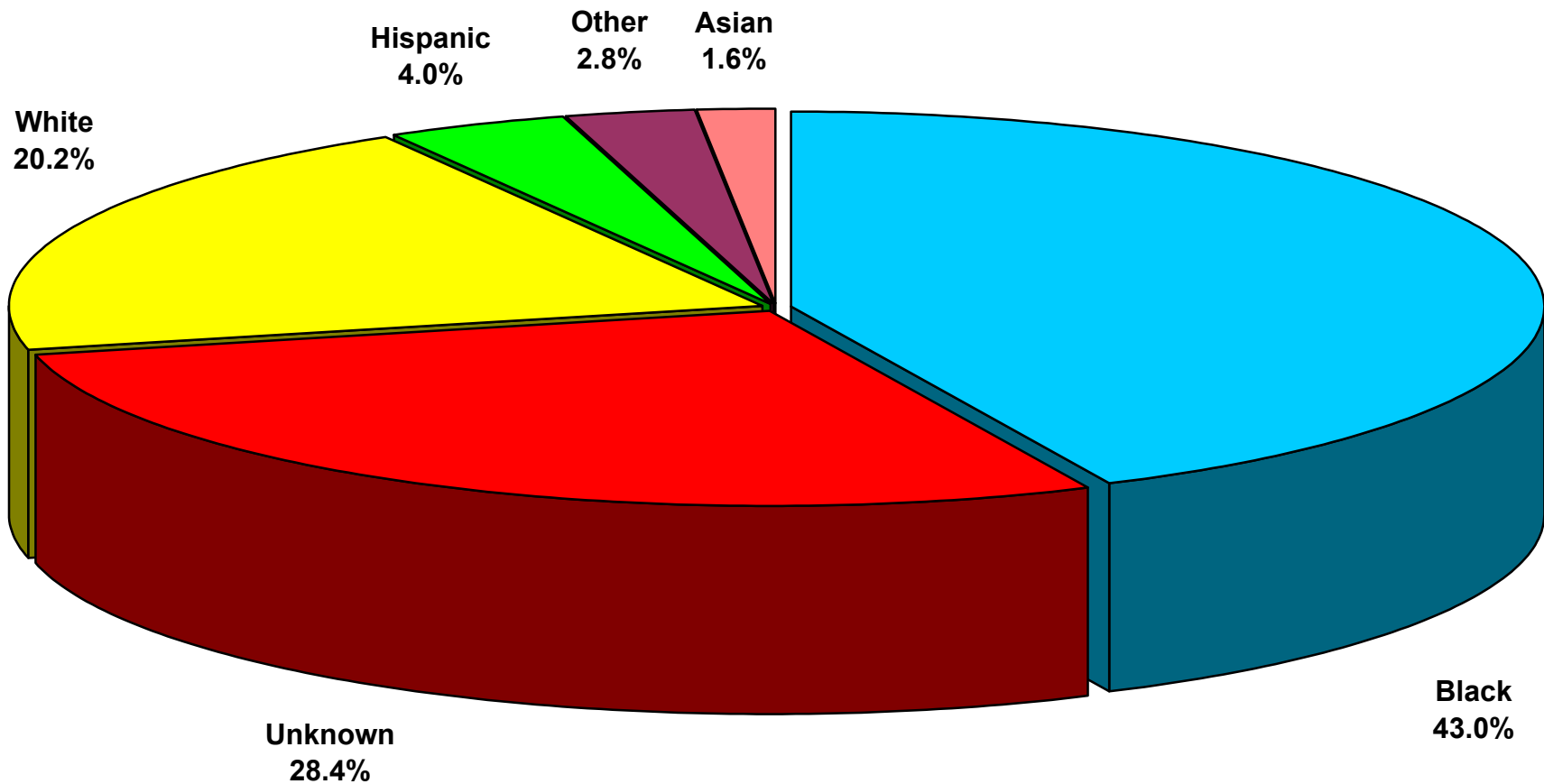
Number of Virginia Children Reported with Blood Lead Levels ≥ 10 $\mu\text{g/dL}$, by Race and Year, from 2001 to 2003



**Percent of Virginia Children Reported with Blood Lead Levels ≥ 10 $\mu\text{g/dL}$,
by Race and Year, from 2001 to 2003**



Virginia Children Reported with Blood Lead Levels ≥ 10 $\mu\text{g/dL}$, by Race, for 2003

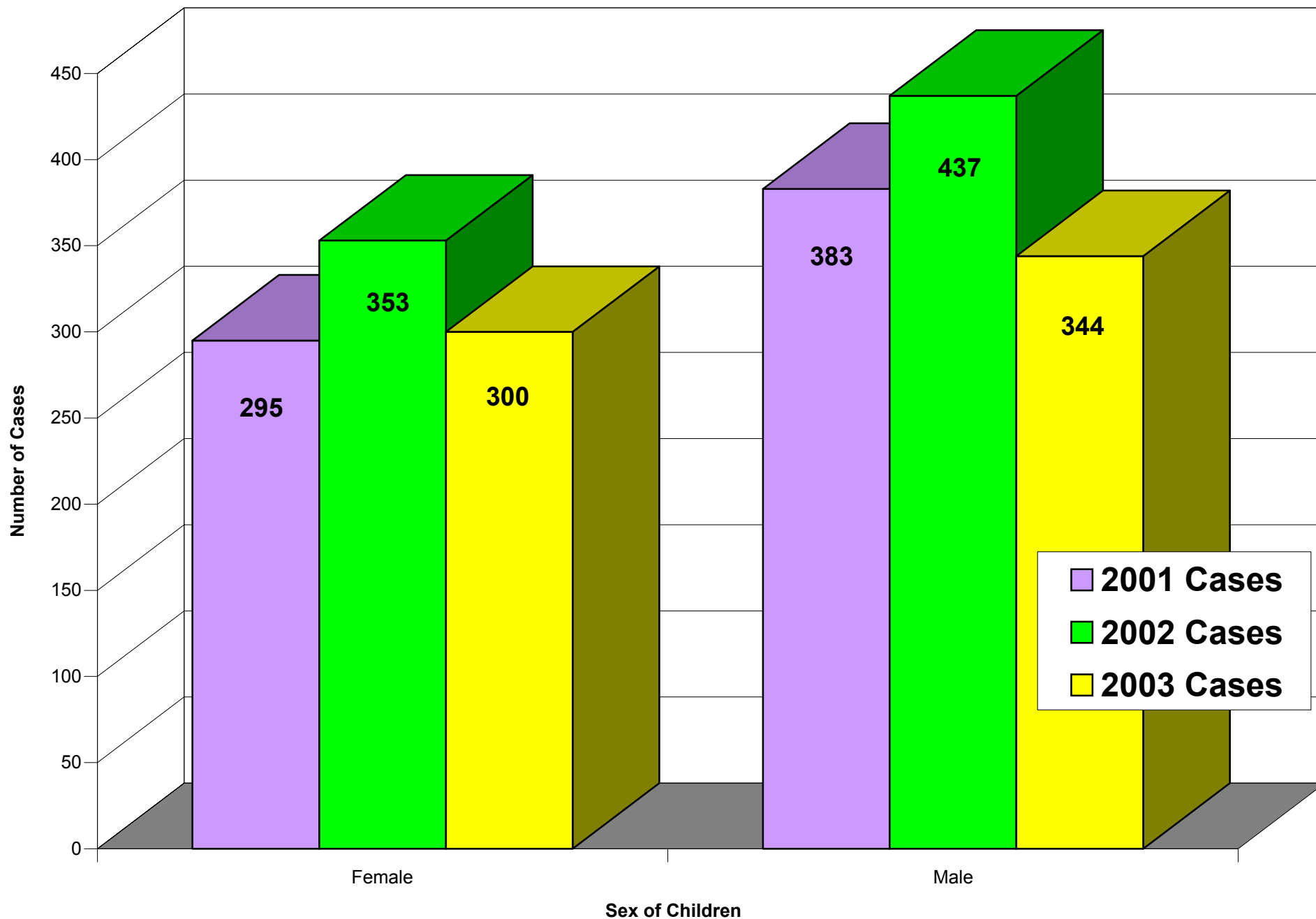


***Number of Virginia Children Reported with Blood Lead
Levels ≥ 10 $\mu\text{g}/\text{dL}$, by Sex, from 2001 to 2003***

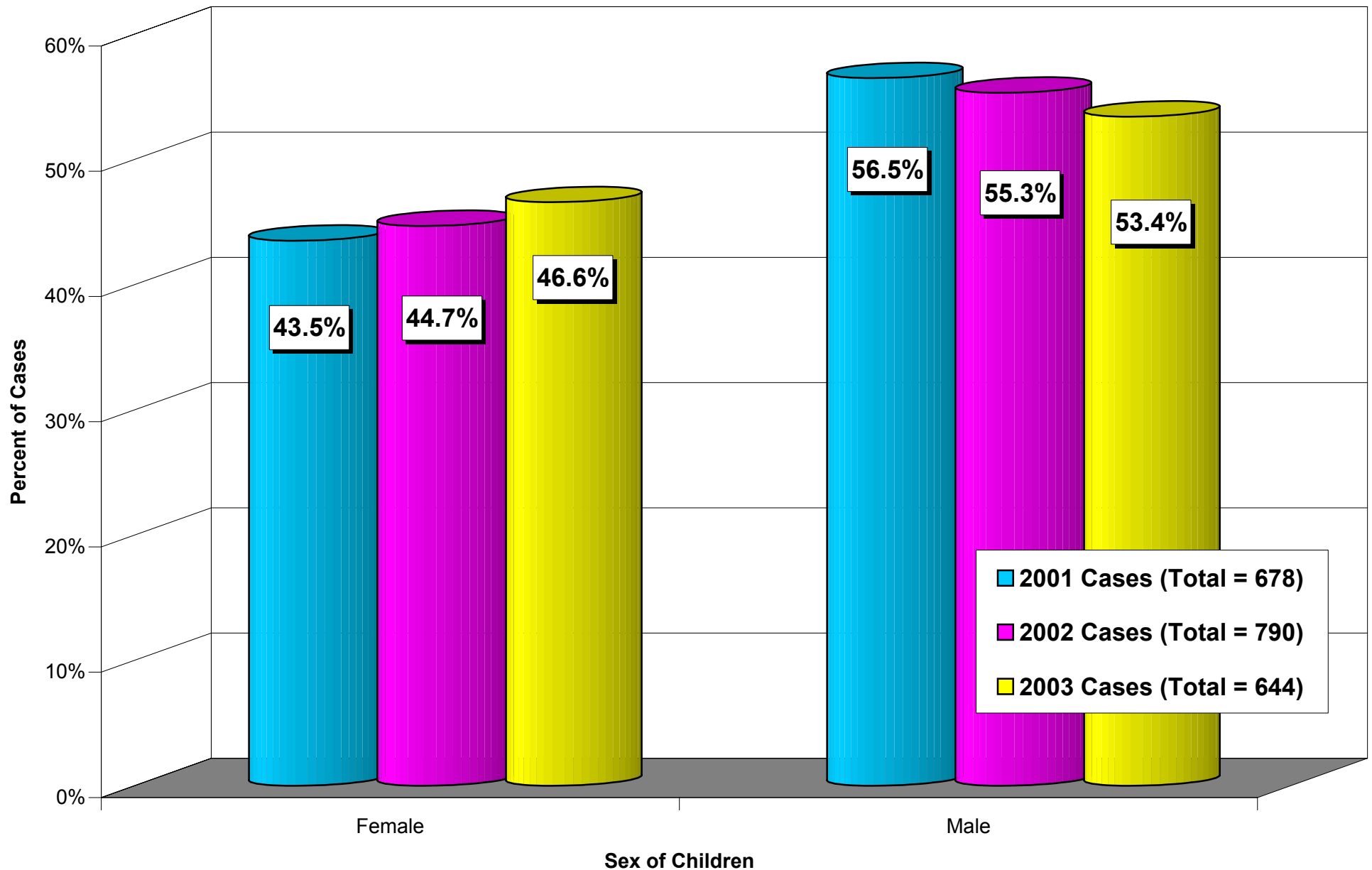
SEX	2001 Cases	2002 Cases	2003 Cases	Total Cases 2001-2003	Percent of 3-Year Total
Female	295	353	300	948	44.9%
Male	383	437	344	1164	55.1%
Total	678	790	644	2112	100.0%

The above data represent new cases of Virginia children reported from 2001 to 2003 with blood lead levels greater than or equal to 10 micrograms per deciliter (≥ 10 $\mu\text{g}/\text{dL}$). The data are a comparison of the children by sex. The majority of cases in all three years were reported as male.

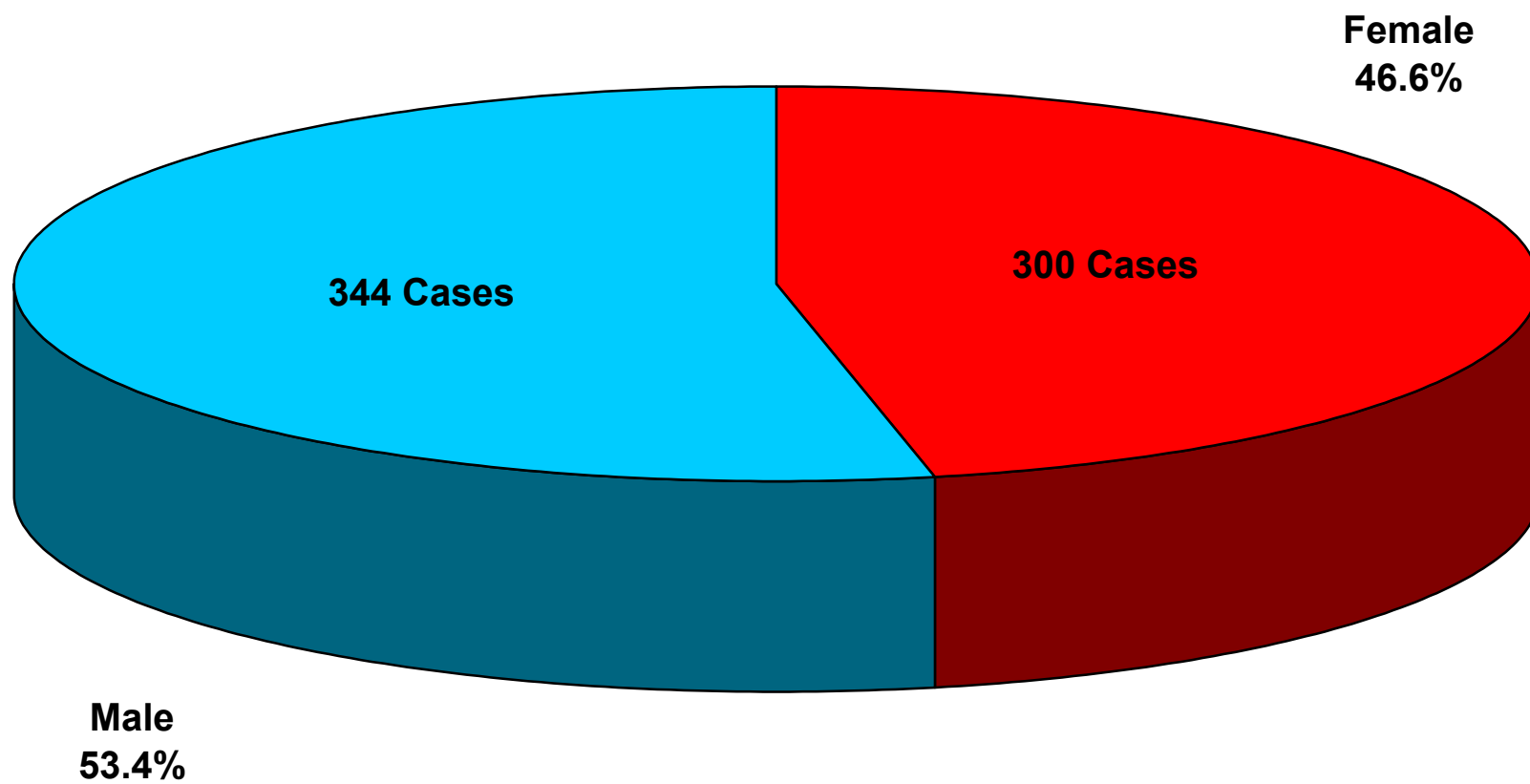
Number of Virginia Children Reported with Blood Lead Levels ≥ 10 $\mu\text{g/dL}$, by Sex and Year, from 2001 to 2003



Percent of Virginia Children Reported with Blood Lead Levels ≥ 10 $\mu\text{g/dL}$, by Sex and Year, from 2001 to 2003



**Virginia Children Reported with Blood Lead Levels
 $\geq 10 \mu\text{g/dL}$, by Sex, for 2003**

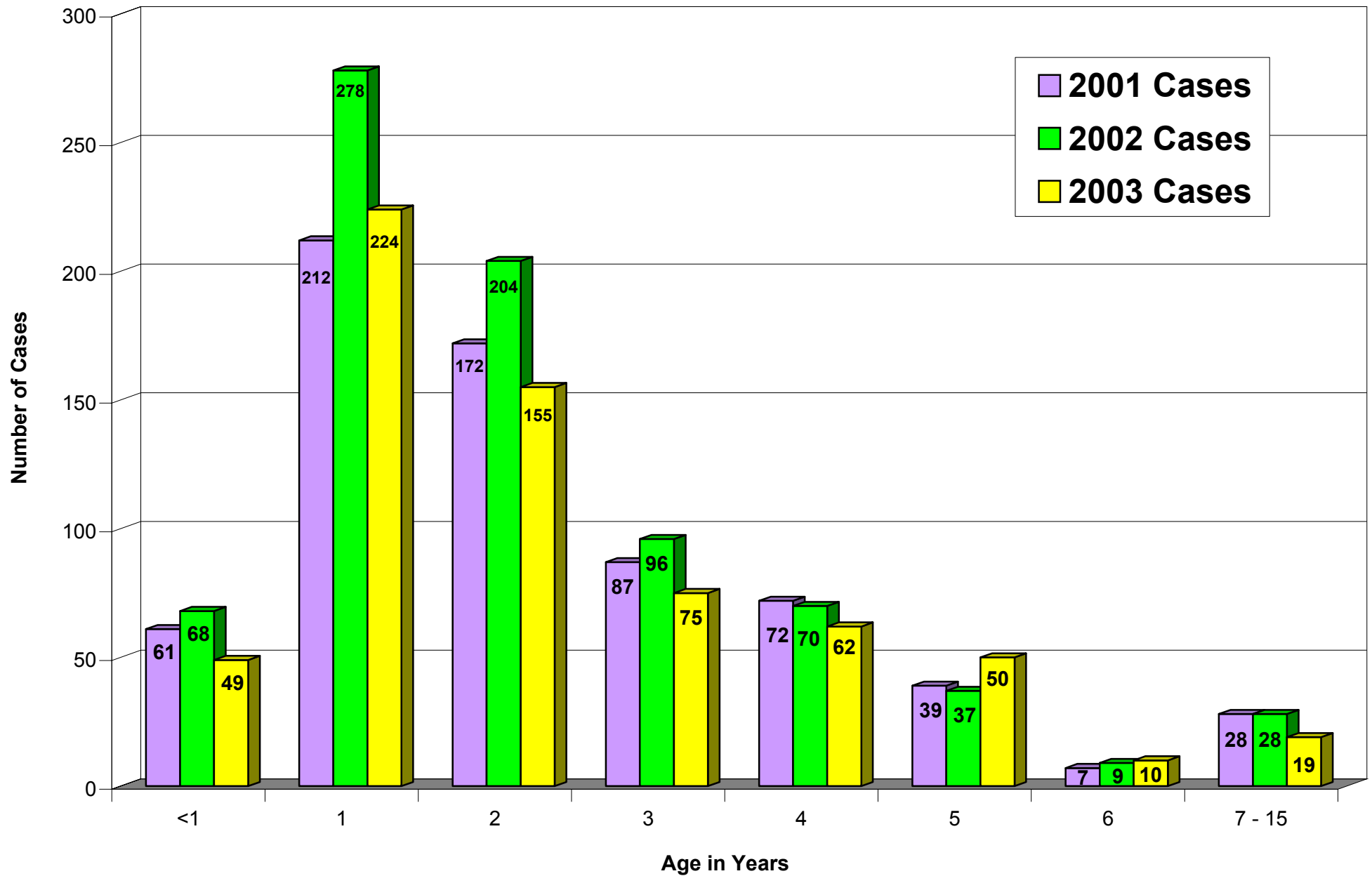


***Number of Virginia Children Reported with Blood Lead
Levels $\geq 10 \mu\text{g/dL}$, by Age, from 2001 to 2003***

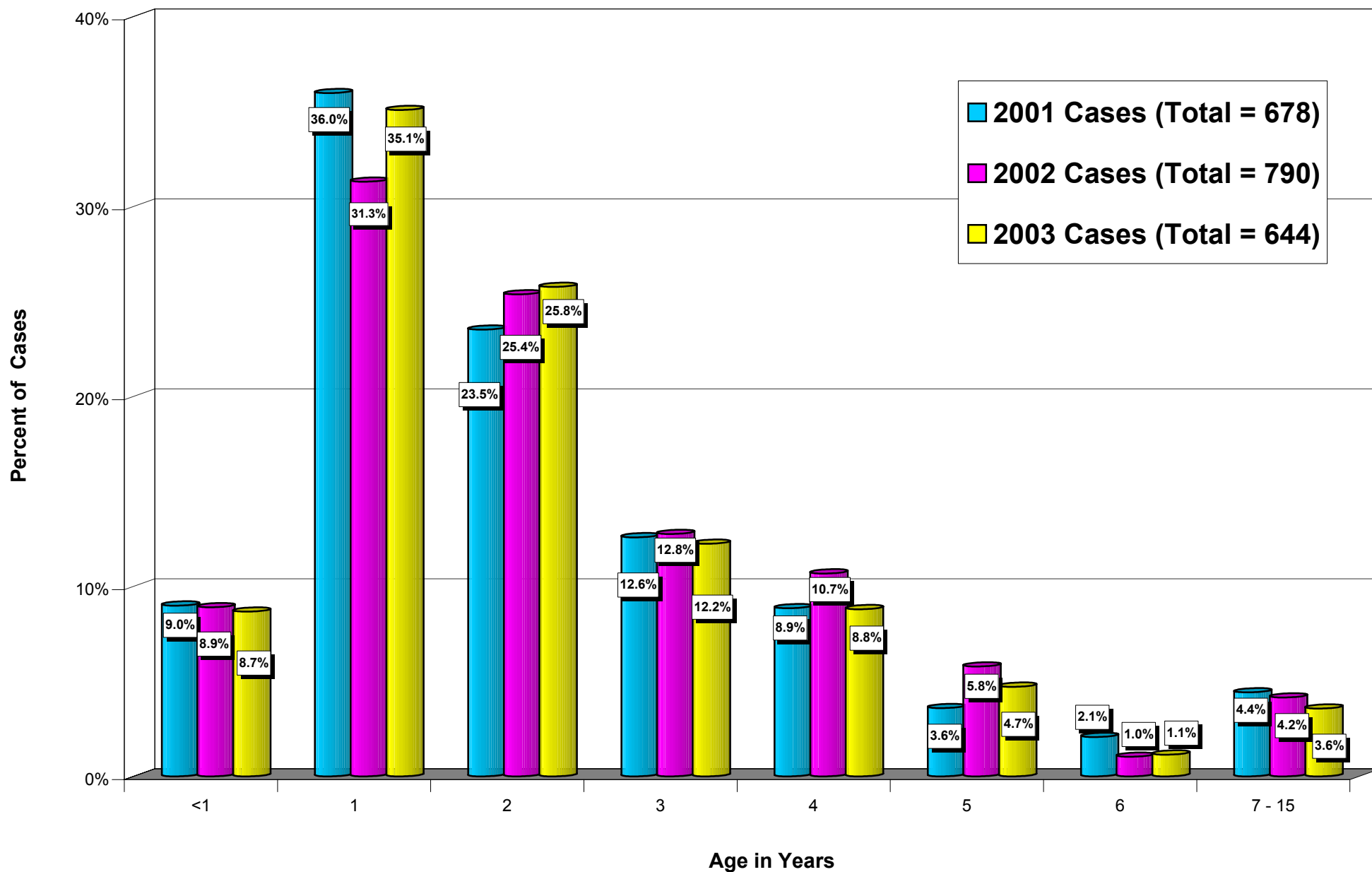
AGE (YEARS)	2001 Cases	2002 Cases	2003 Cases	Total Cases 2001-2003	Percent of 3-Year Total
<1	61	68	49	178	8.4%
1	212	278	224	714	33.8%
2	172	204	155	531	25.1%
3	87	96	75	258	12.2%
4	72	70	62	204	9.7%
5	39	37	50	126	6.0%
6	7	9	10	26	1.2%
7	8	9	5	22	1.0%
8	2	2	4	8	0.4%
9	5	2	2	9	0.4%
10	4	8	2	14	0.7%
11	4	1	1	6	0.3%
12	1	2	1	4	0.2%
13	1	2	2	5	0.2%
14	2	0	1	3	0.1%
15	1	2	1	4	0.2%
Total	678	790	644	2112	100.0%

The above data represent new cases of Virginia children reported from 2001 to 2003 with blood lead levels greater than or equal to 10 micrograms per deciliter ($\geq 10 \mu\text{g/dL}$). The data are a comparison of the children by age up to fifteen years. Age one was the most frequently reported age for each year. The mean age reported in 2003 was 2.3 with a standard deviation of 2.0 and a standard error of 0.1.

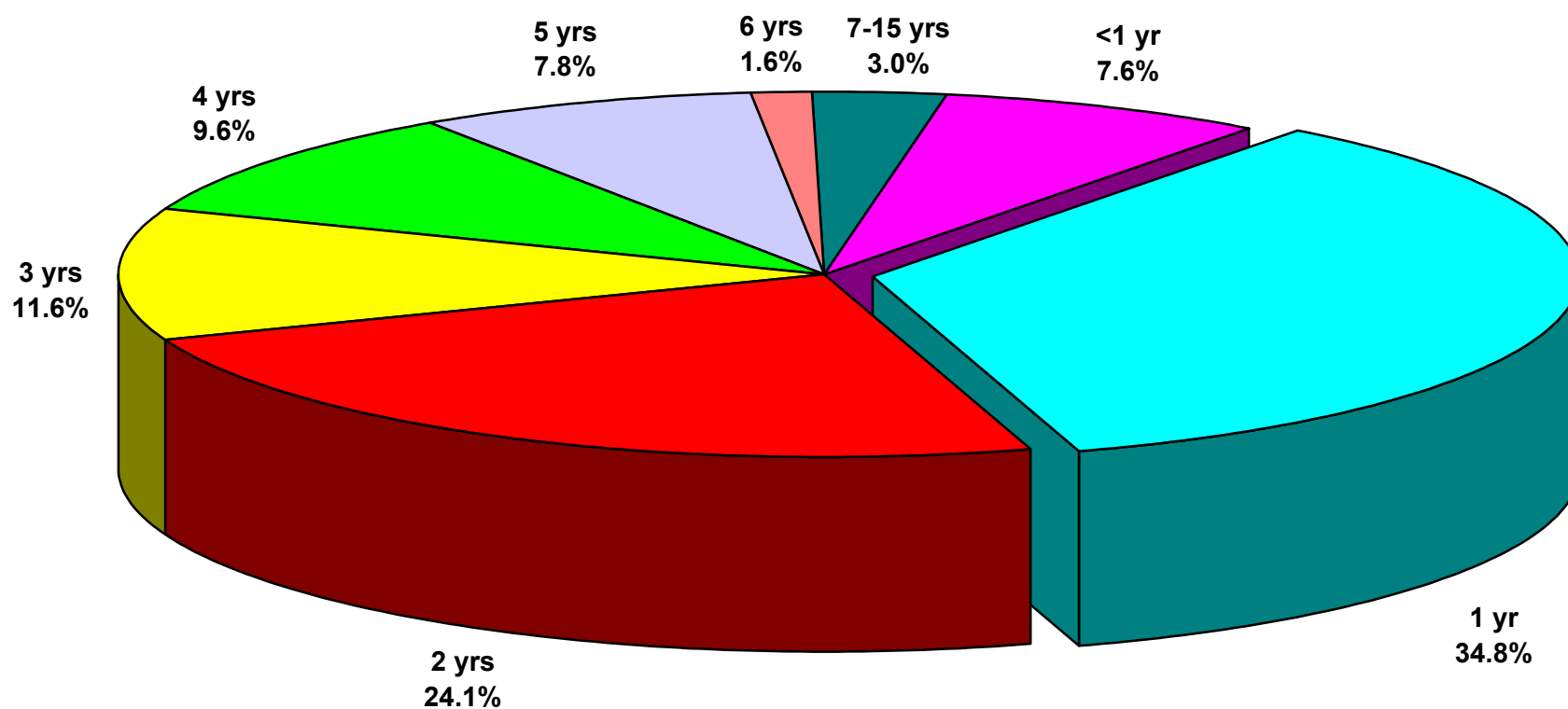
Number of Virginia Children Reported with Blood Lead Levels ≥ 10 $\mu\text{g/dL}$, by Age and Year, from 2001 to 2003



Percent of Virginia Children Reported with Blood Lead Levels ≥ 10 $\mu\text{g/dL}$, by Age and Year, from 2001 to 2003



Virginia Children Reported with Blood Lead Levels $\geq 10 \mu\text{g/dL}$, by Age, for 2003

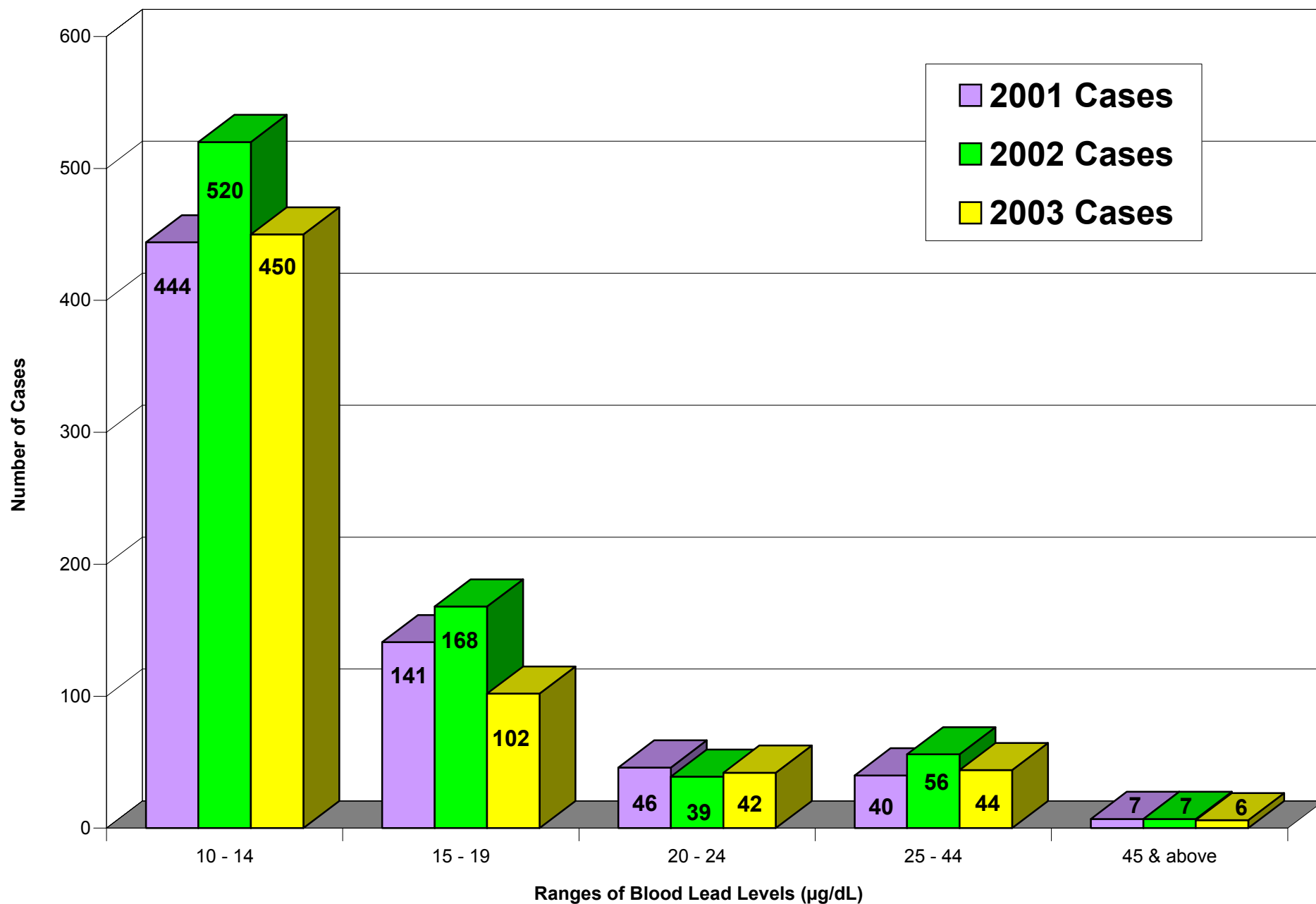


***Number of Virginia Children Reported with Blood Lead Levels
 $\geq 10 \mu\text{g/dL}$, by Range of Elevation, from 2001 to 2003***

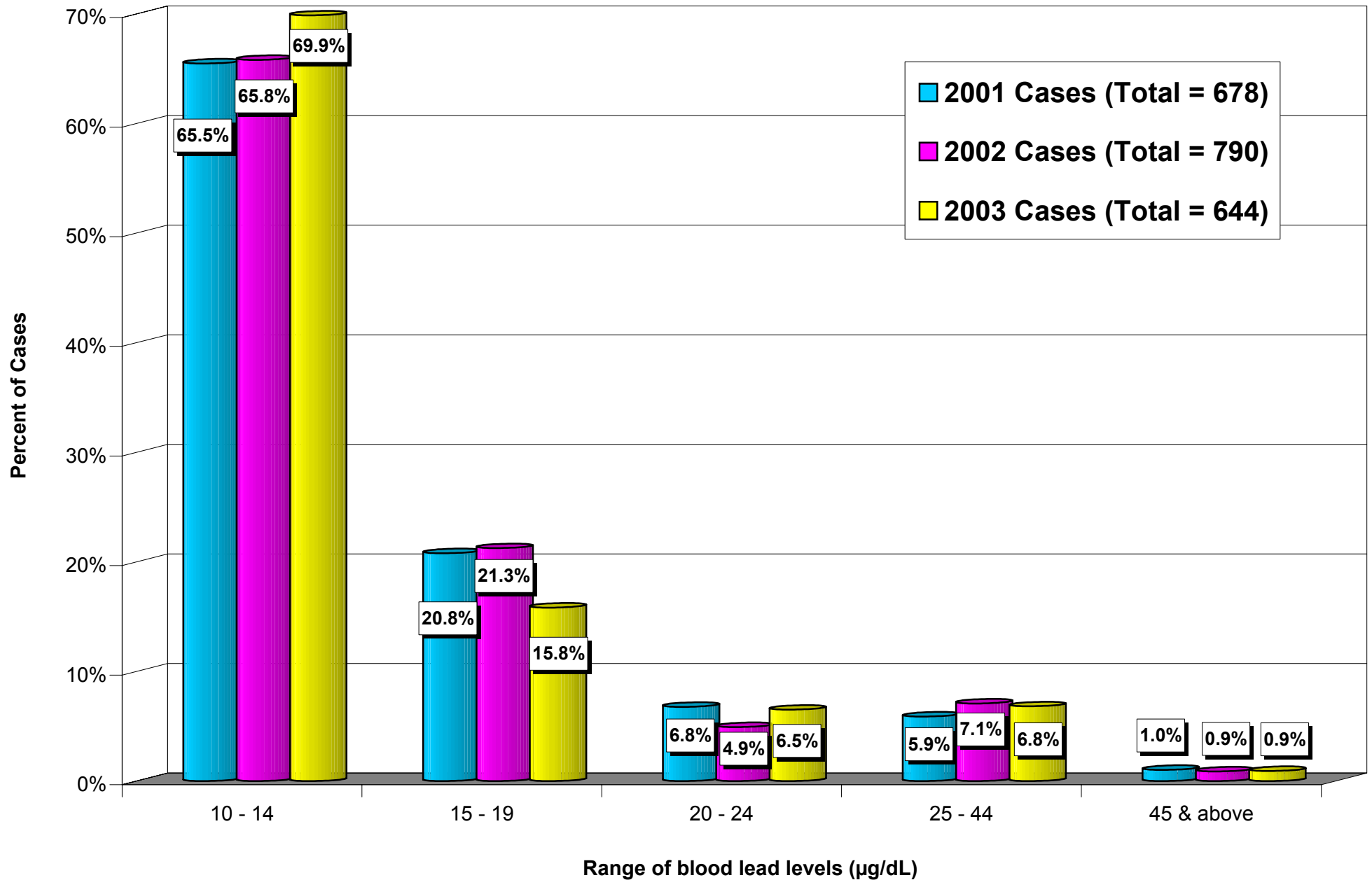
Range ($\mu\text{g/dL}$)	2001 Cases	2002 Cases	2003 Cases	Total Cases 2001-2003	Percent of 3-Year Total
10 - 14	444	520	450	1414	67.0%
15 - 19	141	168	102	411	19.5%
20 - 24	46	39	42	127	6.0%
25 - 44	40	56	44	140	6.6%
45 & above	7	7	6	20	0.9%
Total	678	790	644	2112	100.0%

The above data represent new cases of Virginia children reported from 2001 to 2003 with blood lead levels greater than or equal to 10 micrograms per deciliter ($\geq 10 \mu\text{g/dL}$). The data are a comparison of the children by ranges of elevated blood lead levels. The mean blood lead level reported in 2003 was 14.8 with a standard deviation of 7.9 and a standard error of 0.3.

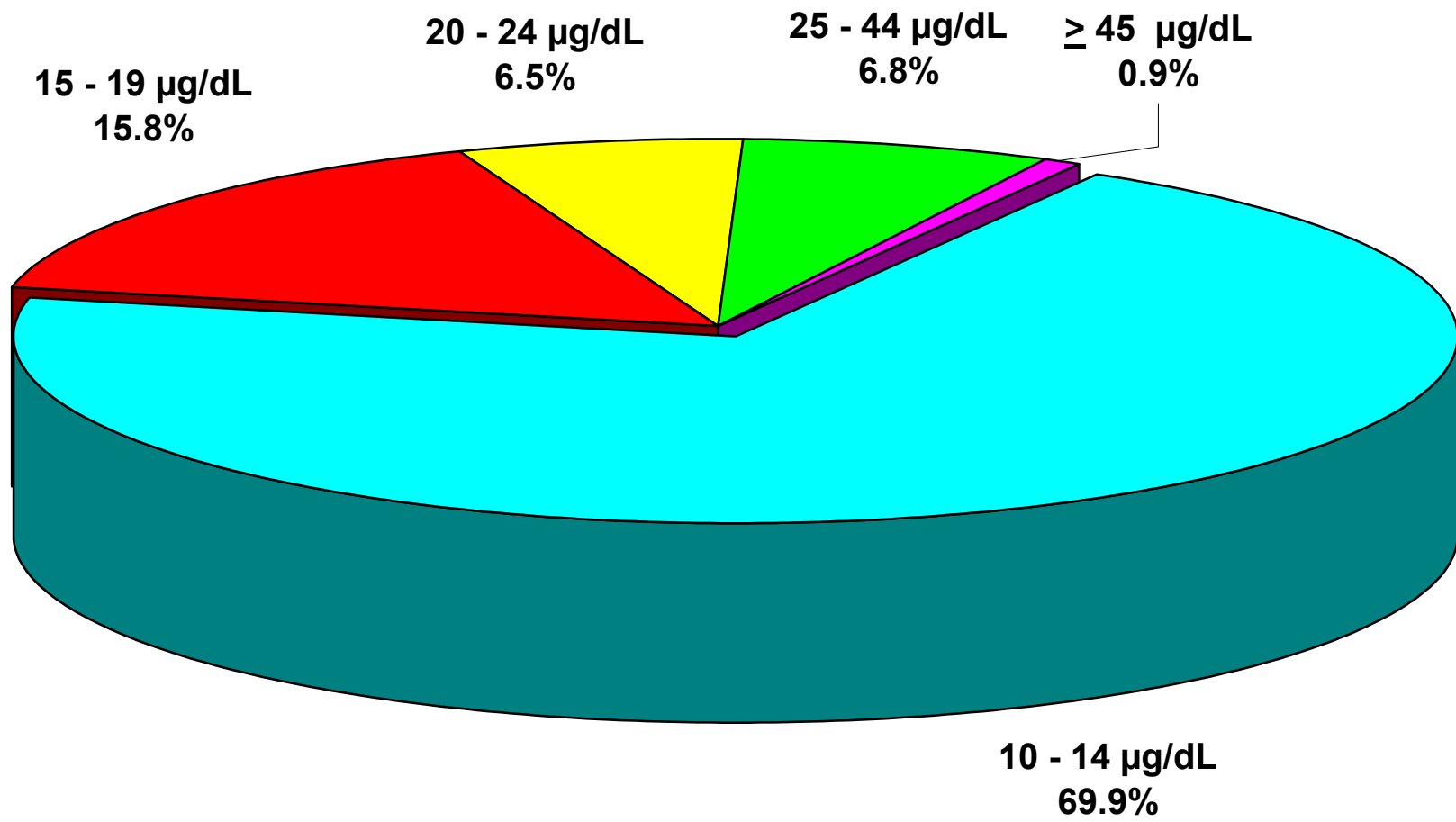
**Number of Virginia Children Reported with Blood Lead Levels
 ≥ 10 $\mu\text{g/dL}$, by Range of Elevation and Year, from 2001 to 2003**



Percent of Virginia Children Reported with Blood Lead Levels ≥ 10 $\mu\text{g/dL}$, by Range of Elevation and Year, from 2001 to 2003



**Virginia Children Reported with Blood Lead Levels
 $\geq 10 \mu\text{g/dL}$, by Range of Elevation, for 2003**



***Number of Reported Cases of Elevated Blood Lead Levels
for Virginia Children, by Health District, from 2001 to 2003***

HEALTH DISTRICT	2001 Cases	2002 Cases	2003 Cases	2001 -2003 Cases	Percent of 3-yr Total
ALEXANDRIA	9	7	2	18	0.9%
ALLEGHANY	1	12	2	15	0.7%
ARLINGTON	9	15	8	32	1.5%
CENTRAL SHENANDOAH	6	38	19	63	3.0%
CENTRAL VIRGINIA	22	41	30	93	4.4%
CHESAPEAKE	7	9	8	24	1.1%
CHESTERFIELD	7	11	12	30	1.4%
CRATER	43	54	30	127	6.0%
CUMBERLAND PLATEAU	10	13	6	29	1.4%
EASTERN SHORE	19	49	19	87	4.1%
FAIRFAX	46	54	33	133	6.3%
HAMPTON	9	8	9	26	1.2%
HANOVER	3	5	4	12	0.6%
HENRICO	25	11	18	54	2.6%
LENOWISCO	4	0	6	10	0.5%
LORD FAIRFAX	3	5	8	16	0.8%
LOUDOUN	3	10	3	16	0.8%
MOUNT ROGERS	3	8	8	19	0.9%
NEW RIVER	8	5	9	22	1.0%
NORFOLK	46	45	44	135	6.4%
PENINSULA	20	23	18	61	2.9%
PIEDMONT	9	15	19	43	2.0%
PITTSYLVANIA/DANVILLE	25	10	21	56	2.7%
PORTSMOUTH	31	22	11	64	3.0%
PRINCE WILLIAM	5	9	5	19	0.9%
RAPPAHANNOCK	8	14	17	39	1.8%
RAPPAHANNOCK/RAPIDAN	6	4	3	13	0.6%
RICHMOND CITY	140	169	189	498	23.6%
ROANOKE CITY	32	44	22	98	4.6%
SOUTHSIDE	15	14	10	39	1.8%
THOMAS JEFFERSON	23	9	5	37	1.8%
THREE RIVERS	20	22	13	55	2.6%
VIRGINIA BEACH	6	4	3	13	0.6%
WEST PIEDMONT	22	10	11	43	2.0%
WESTERN TIDEWATER	33	21	19	73	3.5%
Total	678	790	644	2112	100.0%

***Number of Reported Cases of Elevated Blood Lead Levels
for Virginia Children, by Locality, from 2001 to 2003***

Locality Name	2001 Cases	2002 Cases	2003 Cases	2001-2003 Cases	Percent of 3-year total
Accomack Co	12	32	9	53	2.5%
Albemarle Co/Charlottesville	15	4	3	22	1.0%
Alexandria	9	7	2	18	0.9%
Alleghany Co/Covington/Clifton Forge	0	5	0	5	0.2%
Amelia Co	1	1	1	3	0.1%
Amherst Co	1	7	2	10	0.5%
Appomattox Co	1	1	2	4	0.2%
Arlington Co	9	15	8	32	1.5%
Augusta Co/Staunton	1	17	6	24	1.1%
Bath Co	0	0	0	0	0.0%
Bedford Co/Bedford	2	3	0	5	0.2%
Bland Co	0	0	0	0	0.0%
Botetourt Co	0	0	0	0	0.0%
Bristol	0	1	0	1	0.0%
Brunswick Co	0	4	3	7	0.3%
Buchanan Co	3	2	2	7	0.3%
Buckingham Co	3	1	4	8	0.4%
Buena Vista	0	0	0	0	0.0%
Campbell Co	4	5	7	16	0.8%
Caroline Co	2	4	8	14	0.7%
Carroll Co	1	0	0	1	0.0%
Charles City Co	1	0	0	1	0.0%
Charlotte Co	4	4	1	9	0.4%
Chesapeake	7	9	8	24	1.1%
Chesterfield Co	6	7	8	21	1.0%
Clarke Co	0	0	0	0	0.0%
Colonial Heights	0	1	2	3	0.1%
Craig Co	1	1	0	2	0.1%
Culpeper Co	3	3	1	7	0.3%
Cumberland Co	0	0	1	1	0.0%
Danville	21	8	15	44	2.1%
Dickenson Co	1	0	0	1	0.0%
Dinwiddie Co	1	3	1	5	0.2%
Essex Co	2	3	2	7	0.3%
Fairfax Co/Fairfax/Falls Church	46	54	33	133	6.3%
Fauquier Co	2	1	1	4	0.2%
Floyd Co	2	1	0	3	0.1%
Fluvanna Co	0	0	1	1	0.0%
Franklin City	3	2	1	6	0.3%

Locality Name	2001 Cases	2002 Cases	2003 Cases	2001-2003 Cases	Percent of 3-year total
Franklin Co	2	0	3	5	0.2%
Frederick Co/Winchester	1	2	5	8	0.4%
Fredericksburg	5	6	6	17	0.8%
Galax	0	0	1	1	0.0%
Giles Co	1	0	0	1	0.0%
Gloucester Co	0	0	0	0	0.0%
Goochland Co	1	2	0	3	0.1%
Grayson Co	1	1	0	2	0.1%
Greene Co	2	0	0	2	0.1%
Greensville Co/Emporia	3	1	3	7	0.3%
Halifax Co/South Boston	12	9	2	23	1.1%
Hampton	9	8	9	26	1.2%
Hanover Co	1	2	3	6	0.3%
Henrico Co	25	11	18	54	2.6%
Henry Co/Martinsville	17	8	6	31	1.5%
Highland Co	0	0	0	0	0.0%
Hopewell	6	7	5	18	0.9%
Isle of Wight Co	0	2	0	2	0.1%
James City Co	0	0	0	0	0.0%
King and Queen Co	0	0	1	1	0.0%
King George Co	0	1	1	2	0.1%
King William Co	0	3	0	3	0.1%
Lancaster Co	7	2	2	11	0.5%
Lee Co	1	0	1	2	0.1%
Loudoun Co	3	10	3	16	0.8%
Louisa Co	4	1	1	6	0.3%
Lunenburg Co	0	2	1	3	0.1%
Lynchburg	14	25	19	58	2.7%
Madison Co	0	0	1	1	0.0%
Mathews Co	1	1	0	2	0.1%
Mecklenburg Co	3	1	5	9	0.4%
Middlesex Co	2	2	2	6	0.3%
Montgomery Co	2	1	3	6	0.3%
Nelson Co	2	4	0	6	0.3%
New Kent Co	0	1	1	2	0.1%
Newport News	18	16	17	51	2.4%
Norfolk	46	45	44	135	6.4%
Northampton Co	7	17	10	34	1.6%
Northumberland Co	3	5	2	10	0.5%
Nottoway Co	1	5	4	10	0.5%
Orange Co	1	0	0	1	0.0%
Page Co	1	1	0	2	0.1%
Patrick Co	3	2	2	7	0.3%
Petersburg	30	39	18	87	4.1%

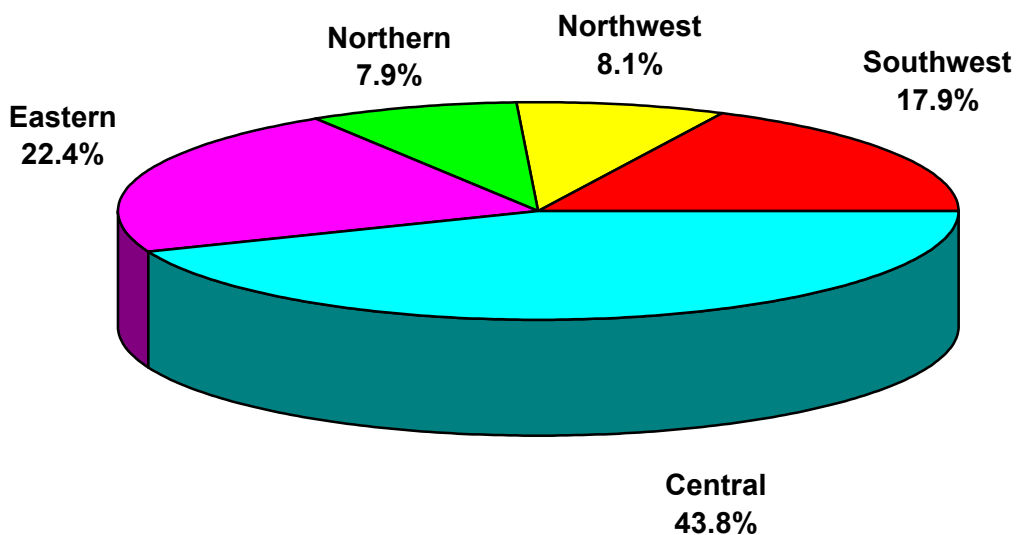
Locality Name	2001 Cases	2002 Cases	2003 Cases	2001-2003 Cases	Percent of 3-year total
Pittsylvania Co	4	2	6	12	0.6%
Portsmouth	31	22	11	64	3.0%
Powhatan Co	1	3	2	6	0.3%
Prince Edward Co	0	2	7	9	0.4%
Prince George Co	1	1	2	4	0.2%
Prince William Co/Manassas	5	9	5	19	0.9%
Pulaski Co	1	1	5	7	0.3%
Radford	2	2	1	5	0.2%
Rappahannock Co	0	0	0	0	0.0%
Richmond City	140	169	189	498	23.6%
Richmond Co	1	3	3	7	0.3%
Roanoke City	32	44	22	98	4.6%
Roanoke Co	0	0	0	0	0.0%
Rockbridge Co/Lexington	0	2	1	3	0.1%
Rockingham Co/Harrisonburg	5	14	8	27	1.3%
Russell Co	0	2	3	5	0.2%
Salem	0	6	2	8	0.4%
Scott Co	2	0	4	6	0.3%
Shenandoah Co	0	1	1	2	0.1%
Smyth Co	0	0	4	4	0.2%
Southampton Co	4	0	1	5	0.2%
Spotsylvania Co	0	0	2	2	0.1%
Stafford Co	1	3	0	4	0.2%
Suffolk	26	17	17	60	2.8%
Surry Co	0	0	1	1	0.0%
Sussex Co	2	3	0	5	0.2%
Tazewell Co	6	9	1	16	0.8%
Virginia Beach	6	4	3	13	0.6%
Warren Co	1	1	2	4	0.2%
Washington Co	1	2	0	3	0.1%
Waynesboro	0	5	4	9	0.4%
Westmoreland Co	4	3	1	8	0.4%
Williamsburg	2	4	1	7	0.3%
Wise Co/Norton	1	0	1	2	0.1%
Wythe Co	0	4	3	7	0.3%
York Co/Poquoson	0	3	0	3	0.1%
Total	678	790	644	2112	100.0%

**Number of Reported Cases of Childhood Elevated Blood
Lead Levels in Virginia, by Region, from 2001 to 2003**

Region	2001 Cases	2002 Cases	2003 Cases	2001-2003 Cases	Percent of 3-year total
Central	242	279	282	803	38.0%
Eastern	191	203	144	538	25.5%
Northern	72	95	51	218	10.3%
Northwest	46	70	52	168	8.0%
Southwest	127	143	115	385	18.2%
Total	678	790	644	2112	100.0%

The above data represent cases of Virginia children reported in all five health planning regions in the state. The Central Region data reveal the most cases in all three years. This region includes the City of Richmond, which historically reports the most cases by locality each year.

**Percent of Reported Cases of Childhood Elevated Blood Lead
Levels in Virginia, by Region, for 2003**



**Reported Cases and Rate per 100,000 Population for
Virginia Children with Blood Lead Levels ≥ 10 $\mu\text{g/dL}$,
by Age Group, for 2003**

Age	Population Total*	2003 Lead Cases**	Rate per 100,000
0 to 4	485,338	565	116.4
5 to 9	482,120	71	14.7
10 to 14	514,770	7	1.4
Total	1,482,228	643	43.4

**Reported Cases and Rate per 100,000 Population for
Virginia Children with Blood Lead Levels ≥ 10 $\mu\text{g/dL}$,
by Race of Child, for 2003**

Race	Population Total* Age 0 to 14	2003 Lead Cases***	Rate per 100,000
Nonwhite	542,570	330	60.8
White	939,658	130	13.8
Total	1,482,228	460	31.0

* Population totals based on 2002 estimates from the Census Bureau.

** Excludes reported case of fifteen years of age (n=1)

*** Excludes reported cases of unknown race.

Number of Reported Cases and Rate per 100,000 Population for
Virginia Children, Age 0 - 14 With Blood Lead Levels ≥ 10 $\mu\text{g/dL}$,
by Health District, for 2003

HEALTH DISTRICT	Population Total* Age 0 to 14	2003 Reported Cases**	Rate per 100,000
ALEXANDRIA	20,586	2	9.7
ALLEGHANY	30,213	2	6.6
ARLINGTON	27,532	8	29.1
CENTRAL SHENANDOAH	45,721	19	41.6
CENTRAL VIRGINIA	43,455	30	69.0
CHESAPEAKE	47,569	8	16.8
CHESTERFIELD	68,018	12	17.6
CRATER	29,849	30	100.5
CUMBERLAND PLATEAU	19,214	6	31.2
EASTERN SHORE	10,027	19	189.5
FAIRFAX	219,333	33	15.0
HAMPTON	29,412	9	30.6
HANOVER	26,404	4	15.1
HENRICO	56,048	18	32.1
LENOWISCO	15,965	6	37.6
LORD FAIRFAX	38,066	8	21.0
LOUDOUN	52,197	3	5.7
MOUNT ROGERS	31,902	8	25.1
NEW RIVER	24,995	9	36.0
NORFOLK	50,154	44	87.7
PENINSULA	69,162	17	24.6
PIEDMONT	17,602	19	107.9
PITTSYLVANIA/DANVILLE	20,349	21	103.2
PORTSMOUTH	21,799	11	50.5
PRINCE WILLIAM	91,366	5	5.5
RAPPAHANNOCK	62,228	17	27.3
RAPPAHANNOCK/RAPIDAN	28,495	3	10.5
RICHMOND CITY	37,736	189	500.8
ROANOKE CITY	18,868	22	116.6
SOUTHSIDE	15,661	10	63.9
THOMAS JEFFERSON	38,133	5	13.1
THREE RIVERS	23,739	13	54.8
VIRGINIA BEACH	98,476	3	3.0
WEST PIEDMONT	25,163	11	43.7
WESTERN TIDEWATER	26,791	19	70.9
Total	1,482,228	643	43.4

* Population totals based on 2002 estimates from the Census Bureau.

**Age 15 years data (n=1) excluded from total cases.

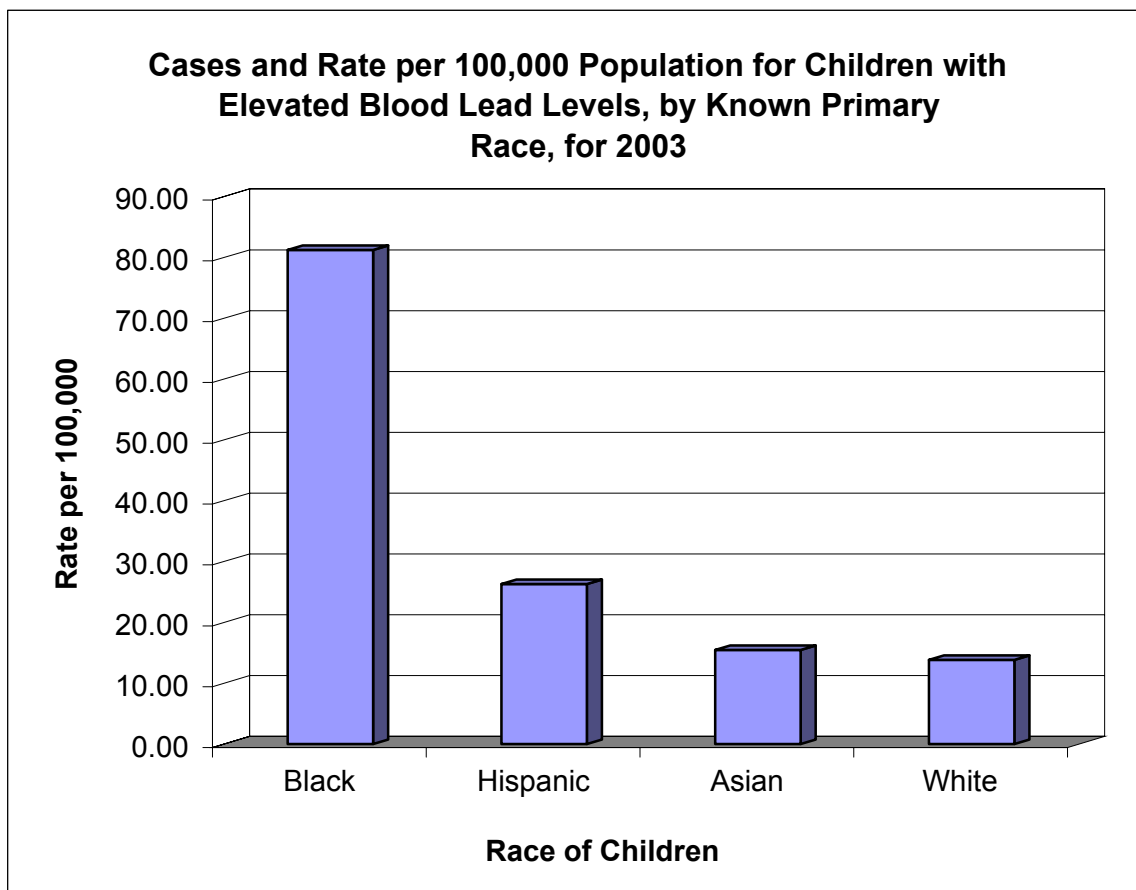
**Number of Reported Cases of Elevated Blood Lead Levels
for Virginia Children, by Health District and Age, for 2003**

DISTRICT	AGE IN YEARS								Total
	<1	1	2	3	4	5	6	7 - 15	
ALEXANDRIA	0	0	0	1	0	1	0	0	2
ALLEGHANY	1	0	0	0	1	0	0	0	2
ARLINGTON	2	2	2	1	0	0	0	1	8
CENTRAL SHENANDOAH	0	11	7	0	0	0	0	1	19
CENTRAL VIRGINIA	3	15	5	3	3	0	0	1	30
CHESAPEAKE	1	2	1	0	2	2	0	0	8
CHESTERFIELD	0	3	4	4	0	0	0	1	12
CRATER	0	11	8	4	3	4	0	0	30
CUMBERLAND PLATEAU	1	2	2	0	0	1	0	0	6
EASTERN SHORE	1	10	6	1	1	0	0	0	19
FAIRFAX	6	8	5	3	5	4	1	1	33
HAMPTON	0	6	1	0	2	0	0	0	9
HANOVER	0	1	2	0	1	0	0	0	4
HENRICO	0	6	10	1	0	0	0	1	18
LENOWISCO	1	1	1	0	0	0	0	3	6
LORD FAIRFAX	0	5	2	0	0	1	0	0	8
LOUDOUN	0	0	2	0	1	0	0	0	3
MOUNT ROGERS	1	0	2	4	0	0	0	1	8
NEW RIVER	3	2	1	1	2	0	0	0	9
NORFOLK	6	17	14	0	4	3	0	0	44
PENINSULA	0	8	2	4	3	0	0	1	18
PIEDMONT	0	3	7	4	1	2	1	1	19
PITTSYLVANIA/DANVILLE	2	8	5	2	1	2	1	0	21
PORTSMOUTH	0	5	3	2	0	1	0	0	11
PRINCE WILLIAM	1	1	1	1	0	0	0	1	5
RAPPAHANNOCK	1	9	1	1	0	5	0	0	17
RAPPAHANNOCK/RAPIDAN	0	2	1	0	0	0	0	0	3
RICHMOND CITY	13	53	41	28	27	19	5	3	189
ROANOKE CITY	2	5	8	1	2	3	1	0	22
SOUTHSIDE	1	3	3	2	0	0	0	1	10
THOMAS JEFFERSON	0	4	1	0	0	0	0	0	5
THREE RIVERS	2	3	1	4	1	0	0	2	13
VIRGINIA BEACH	1	0	2	0	0	0	0	0	3
WEST PIEDMONT	0	7	1	0	1	1	1	0	11
WESTERN TIDEWATER	0	11	3	3	1	1	0	0	19
Total	49	224	155	75	62	50	10	19	644

**Reported Cases and Rate per 100,000 Population for
Virginia Children with Blood Lead Levels ≥ 10 $\mu\text{g/dL}$,
by Known Primary Race, for 2003***

Race	Total Cases	Population Total Age 0 to 14	Rate per 100,000
Black	277	340,947	81.24
Hispanic	26	98,851	26.30
Asian	9	58,061	15.50
White	130	939,658	13.83
Total	442	1,437,517	30.75

* Population totals based on 2002 population estimates from the Census Bureau.
Age 15 data (n=1) excluded from total cases.



The above data exclude children reported with unknown race, more than one race, and races not listed in the standard categories (unknown=183; other=18). The racial classification of White does not include Hispanics. The classification of Asian includes Pacific Islanders.

***Number of Reported Cases of Elevated Blood Lead Levels
for Virginia Children, by Health District and Race, for 2003***

Health District	Race of Child						Total
	Asian	Black	Hispanic	Other	Unknown	White	
ALEXANDRIA	0	0	1	0	0	1	2
ALLEGHANY	0	0	0	0	0	2	2
ARLINGTON	0	0	5	0	1	2	8
CENTRAL SHENANDOAH	0	2	3	1	3	10	19
CENTRAL VIRGINIA	0	18	0	0	1	11	30
CHESAPEAKE	1	4	0	1	0	2	8
CHESTERFIELD	2	5	1	0	3	1	12
CRATER	0	21	1	0	5	3	30
CUMBERLAND PLATEAU	0	0	0	0	4	2	6
EASTERN SHORE	0	7	5	0	0	7	19
FAIRFAX	2	3	0	3	23	2	33
HAMPTON	0	1	0	0	6	2	9
HANOVER	0	1	0	0	0	3	4
HENRICO	0	6	1	0	7	4	18
LENOWISCO	0	0	0	0	0	6	6
LORD FAIRFAX	0	0	1	2	2	3	8
LOUDOUN	0	1	0	0	1	1	3
MOUNT ROGERS	0	0	1	0	3	4	8
NEW RIVER	0	0	0	0	6	3	9
NORFOLK	0	23	0	1	10	10	44
PENINSULA	1	9	1	0	5	2	18
PIEDMONT	0	10	0	0	0	9	19
PITTSYLVANIA/DANVILLE	0	12	0	0	8	1	21
PORTSMOUTH	1	6	0	2	0	2	11
PRINCE WILLIAM	0	1	1	2	1	0	5
RAPPAHANNOCK	0	4	0	1	3	9	17
RAPPAHANNOCK/RAPIDAN	0	0	0	1	0	2	3
RICHMOND CITY	2	99	3	2	81	2	189
ROANOKE CITY	0	11	1	0	1	9	22
SOUTHSIDE	0	4	0	0	4	2	10
THOMAS JEFFERSON	0	3	0	0	0	2	5
THREE RIVERS	1	5	0	1	2	4	13
VIRGINIA BEACH	0	1	0	0	1	1	3
WEST Piedmont	0	3	1	0	2	5	11
WESTERN TIDEWATER	0	17	0	1	0	1	19
Total	10	277	26	18	183	130	644

***Patient Status of Reported Cases of Elevated Blood Lead Levels
for Virginia Children, by Health District, for 2003***

Health District	Health Department Patient	Non-Health Department Patient	Total
ALEXANDRIA	1	1	2
ALLEGHANY	1	1	2
ARLINGTON	3	5	8
CENTRAL SHENANDOAH	2	17	19
CENTRAL VIRGINIA	22	8	30
CHESAPEAKE	1	7	8
CHESTERFIELD	3	9	12
CRATER	10	20	30
CUMBERLAND PLATEAU	0	6	6
EASTERN SHORE	7	12	19
FAIRFAX	2	31	33
HAMPTON	0	9	9
HANOVER	0	4	4
HENRICO	2	16	18
LENOWISCO	0	6	6
LORD FAIRFAX	0	8	8
LOUDOUN	0	3	3
MOUNT ROGERS	2	6	8
NEW RIVER	1	8	9
NORFOLK	14	30	44
PENINSULA	0	18	18
PIEDMONT	1	18	19
PITTSYLVANIA/DANVILLE	14	7	21
PORTSMOUTH	4	7	11
PRINCE WILLIAM	1	4	5
RAPPAHANNOCK	2	15	17
RAPPAHANNOCK/RAPIDAN	0	3	3
RICHMOND CITY	81	108	189
ROANOKE CITY	13	9	22
SOUTHSIDE	1	9	10
THOMAS JEFFERSON	0	5	5
THREE RIVERS	0	13	13
VIRGINIA BEACH	1	2	3
WEST PIEDMONT	1	10	11
WESTERN TIDEWATER	0	19	19
Total	190	454	644

FACILITIES REPORTING CHILDREN WITH ELEVATED BLOOD LEAD LEVELS DURING 2003

Reporting Facility	2003 Cases	Percent of Total
Laboratory	588	91.3%
Hospital	36	5.6%
Physician's Office	20	3.1%
Total	644	100.0%

The majority of cases reported with elevated blood lead levels were received from laboratories, which include both private and state-operated facilities. The laboratory reporting the highest number of new cases was Labcorp (283 = 48.1%), followed by Medtox (116 = 19.7%) and DCLS (113 = 19.2%). Children's Hospital of the King's Daughters in Norfolk reported all cases from hospitals (36 = 100%).

ADDRESS STATUS FOR CHILDREN REPORTED WITH ELEVATED BLOOD LEAD LEVELS DURING 2003

Address Status	2003 Cases	Percent of Total
Current Home Address	610	94.7%
Home Address Unknown	34	5.3%
Total	644	100.0%

When the child's home address is unknown, the address recorded is that of the physician or screening facility. To the extent possible, missing data are obtained through assistance and cooperation with the local health departments. In general, the percentage of cases with an unknown home address has continually been reduced from a high of 12.8% in 1994.

**PATIENT STATUS FOR CHILDREN REPORTED WITH
ELEVATED BLOOD LEAD LEVELS DURING 2003**

Patient Status	2003 Cases	Percent of Total
Non - Health Department Patients	454	70.5%
Health Department Patients	190	29.5%
Total	644	100.0%

The majority of cases reported in 2003 were for children receiving their initial lead screening in the private sector as opposed to a local health department. The percentage of health department patients reported in 2003 (29.5%) and 2002 (23.3%) indicate a reverse trend in the numbers of children receiving their initial lead screening at a local health department (in 2001 = 20.9%; in 2000 = 34.1%; and in 1999 = 39.5%).

**SCREENING TEST TYPE FOR CHILDREN REPORTED WITH
ELEVATED BLOOD LEAD LEVELS IN VIRGINIA DURING 2003**

Screening Test Type	2003 Cases	Percent of Total
Venous	314	48.8%
Unknown	204	31.7%
Type 2	126	19.6%
Total	644	100.0%

The majority of screening test types were reported as venous. Unknown refers to a single elevated test which was not designated as capillary or venous. Type 2 refers to two or more tests with blood lead levels ≥ 10 $\mu\text{g/dL}$ reported as either capillary or unknown. Venous tests are the preferred method of testing.

**FREQUENCY OF REPEAT TESTING FOR CHILDREN REPORTED
WITH ELEVATED BLOOD LEAD LEVELS IN VIRGINIA DURING 2003**

Total Number of Elevated Test Results*	Number of Children	Percent of Total
1	322	50.0%
2	150	23.3%
3	91	14.1%
4	41	6.4%
5	20	3.1%
6	6	0.9%
7	5	0.8%
8	5	0.8%
9	1	0.2%
10	1	0.2%
11	1	0.2%
15	1	0.2%
Total	644	100.0%

The majority of children with elevated blood lead levels in 2003 were recorded with one test ≥ 10 $\mu\text{g/dL}$ (322 = 50.0%). Of these children, 255 were found to have lead levels in the 10 -14 $\mu\text{g/dL}$ range, 35 were found to have lead levels in the 15 - 19 $\mu\text{g/dL}$ range, 13 were found to have lead levels in the 20 - 24 $\mu\text{g/dL}$ range, 16 were found to have lead levels in the 25 - 44 $\mu\text{g/dL}$ range, and 3 children were reported with lead levels ≥ 45 $\mu\text{g/dL}$. While these children were reported with one elevated test result, it is possible that follow-up testing did occur but was not reported because the resulting level was less than 10 $\mu\text{g/dL}$. Of the 322 single elevated tests, 200 were reported as unknown test type, and 122 were reported as venous.

* Initial blood lead screening tests for these children were performed in 2003. The number of repeat tests were recorded through 9/30/04 to provide the most current data available for each child.